



PTO/SB/21 (08-00) Approved for use through 10/31/2002, OMB 0651-0031
U.S. Patent and Trademerk Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. 09/779,789 Application Number 02/07/2001 **TRANSMITTAL** Filing Date Behrooz REZVANI **FORM** First Named Inventor 2637 Group Art Unit (to be used for all correspondence after initial filing) AHN, SAM K **Examiner Name** VELCP008X1C Attorney Docket Number Total Number of Pages in This Submission (check all that apply) **ENCLOSURES** After Allowance Communication Assignment Papers # Fee Transmittal Form to Group (for an Application) Appeal Communication to Board Drawing(s) Fee Attached of Appeals and Interferences Appeal Communication to Group Licensing-related Papers Amendment / Reply (Appeal Notice, Brief, Reply Brief) Petition # After Final Proprietary Information Petition to Convert to a Affidavits/declaration(s) Provisional Application Status Letter Power of Attorney, Revocation Change of Correspondence Address Other Endosure(s) (please **Extension of Time Request** identify below): 1- Request for Certificate of Terminal Disclaimer Correction of Patent 6,985,521 Express Abandonment Request Request for Refund 2-PTO/SB/44 Information Disclosure Statement X Return Receipt Postcard Certified Copy of Priority Remarks Certificate AUG 1 0 2006 Feorrection Document(s) Response to Missing Parts/ Incomplete Application Response to Missing Parts under 37 CFR 1.52 or 1.53 SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT Firm **IP** Creators Individual name Charles C. Cary Reg. #: 36,764 Signature August 4, 2006 Date CERTIFICATE OF TRANSMISSION/MAILING I hereby certify that this correspondence is being facsimile transmitted to the USFT or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to:Commissioner for Patents, P.O. B 150, Alexandria, VA 22313 on this date: August 4, 2006 Charles C. Cary Typed or printed name August 4, 2006 Date Signature

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In re application of: REZVANI et al.

Attorney Docket No.: VELCP008X1C

Application No.: 09/779,789

Patent No.: US 6,985,521 B1

Filed: 02/07/2001

Date of Patent: Jan 10, 2006

Title: METHOD AND APPARATUS FOR CHANNEL ESTIMATION FOR X-DSL

Examiner: AHN, SAM K.

COMMUNICATIONS

Group: 2637

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Attention Certificate of Corrections Branch, Commissioner for Patents, Alexandria, Virginia 22333, 1450.

Date: August 4, 2006

Signed:

REQUEST FOR CERTIFICATE OF CORRECTION

Attention Certificate of Corrections Branch Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

Sir:

This communication is a request for Certificate of Correction for the above subject Patent No. 6,985,521. There are errors made by the Office in Claim 2, specifically the Office has substituted the Abstract into Claim 2 rather than the body of amended Claim 8 (renumbered Claim 2) as presented by the Applicant on August 15 2005 in a Petition for Amendment After Final which petition was accepted by the Examiner.

Certificate of Correction is requested to include the corrections in the following and indicated on PTO/SB/44 Form:

Amendment after Final filed on August 15, 2005 and specifically:

Page 3 lines 10-22 and Page 4 lines 1-6 encompassing the body of Amended Claim 8 which reads as follows:

Claim 8 (currently amended) The An apparatus of Claim 1, wherein the detector further comprises: for channel estimation in a communication device having a transmit path and a receive path both coupled to a communication medium, and the apparatus comprising:

a pseudo-random noise generator (PRN) coupled to the transmit path to inject a codeword into the transmit path;

a correlator coupled to the receive path to generate an ordered set of correlation coefficients corresponding with successive phasings of the codeword with respect to a received signal, and the correlator including:

- a detector to detect peaks within the ordered set of correlation coefficients including both a peak corresponding with a leakage signal together with at least one other peak corresponding to a reflection of the injected codeword by the communication medium, and the detector determining at least one of the offset between peaks or a relative magnitude of the peaks, thereby estimating the channel characteristics across the communication medium- and the detector including:
 - a peak detector for detecting peaks within the ordered set of correlation coefficients;
 - a leakage peak detector for determining which among the peaks detected by said peak detector corresponds with the leakage peak; and
 - a sequencer for sequentially ordering the peaks corresponding with a time
 of receipt of each of the reflected signals with respect to the peak
 corresponding with the time of receipt of the leakage signal to estimate
 channel characteristics for the communication medium.

Should there be any fee due in connection with the filing of this request, the Commissioner is hereby authorized to charge such fees to Deposit Account 50-1338 (Order No. VELCP008X1C).

Thank you for your assistance in this matter. Do not hesitate to contact the undersigned as indicated below should you have any questions regarding this matter.

Respectfully submitted,

Date: August 4, 2006

Registration No. 36,764

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UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO. : US 6,985,521

DATED : Jan 10, 2006

DATED : Jan 10, 2006

INVENTOR(S) : Behrooz Rezvani; Sam Heidari; and Dale Smith

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Col. 14, lines 41-58 should be deleted and the following inserted:

- 2. An apparatus for channel estimation in a communication device having a transmit path and a receive path both coupled to a communication medium, and the apparatus comprising; a pseudo-random noise generator (PRN) coupled to the transmit path to inject a codeword into the transmit path;

a correlator coupled to the receive path to generate an ordered set of correlation coefficients corresponding with successive phasings of the codeword with respect to a received signal, and the correlator including:

a detector to detect peaks within the ordered set of correlation coefficients including both a peak corresponding with a leakage signal together with at least one other peak corresponding to a reflection of the injected codeword by the communication medium, and the detector determining at least one of the offset between peaks or a relative magnitude of the peaks, thereby estimating the channel characteristics across the communication medium, and the detector including:

a peak detector for detecting peaks within the ordered set of correlation coefficients;

a leakage peak detector for determining which among the peaks detected by said peak detector corresponds with the leakage peak; and

a sequencer for sequentially ordering the peaks corresponding with a time of receipt of each of the reflected signals with respect to the peak corresponding with the time of receipt of the leakage signal to estimate channel characteristics for the communication medium. —

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PATENT NO. 6,985,521

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